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## TUNABLE DYNAMIC GAIN FLATTENING FILTER USING POLARIZATION DELAYS

### Cross-Reference to Related Applications

5 This application is a continuation-in-part of serial no. 09/765,971 *now U.S.P. No. 6,531,229*  
filed 01/19/2001 which is a continuation-in-part of serial no. 09/729,661 *now U.S.P. No. 6,510,261*  
filed 12/04/2000, which is a continuation-in-part of serial no. 09/666,763  
filed 09/21/2000, *now U.S.P. No. 6,539,148* which application is a continuation-in-part of and claims  
the benefit of priority from Provisional Patent Application Serial No.  
10 60/206,767, filed 05/23/2000, serial no. 09/666,763 also being a *now U.S.P. No. 6,253,002*  
continuation in part of serial no. 09/571,092 filed 5/15/2000, which is a *now U.S.P. No. 6,233,379*  
continuation of serial no. 09/425,099 filed 09/23/1999, which is a *now U.S.P. No. 6,021,237*  
continuation-in-part of serial no. 09/022,413 filed 02/12/1998, which claims  
15 priority to KR 97-24796 filed 06/06/1997, all of which applications are fully  
incorporated herein by reference.

### BACKGROUND OF THE INVENTION

#### Field of the Invention

20 This invention relates generally to tunable band-rejection filters, and  
more particularly to tunable band-rejection filters using fixed and tunable  
polarization delays.

#### Description of Related Art

25 In modern telecommunication systems, many operations with digital signals  
are performed on an optical layer. For example, digital signals are optically  
amplified, multiplexed and demultiplexed. In long fiber transmission lines,